

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

BRIDGESTONE SPORTS CO., LTD.,)	
and BRIDGESTONE GOLF, INC.,)	
)	
Plaintiffs,)	
)	
v.)	C. A. No. 05-132 (JJF)
)	
ACUSHNET COMPANY,)	DEMAND FOR JURY TRIAL
)	
Defendant.)	
)	
ACUSHNET COMPANY,)	PUBLIC VERSION
)	
Counterclaim Plaintiff,)	
)	
v.)	
)	
BRIDGESTONE SPORTS CO., LTD.)	
and BRIDGESTONE GOLF, INC.)	
)	
Counterclaim Defendant.)	

**ACUSHNET COMPANY'S BRIEF IN OPPOSITION TO
BRIDGESTONE'S PROPOSED CLAIM CONSTRUCTIONS**

OF COUNSEL:

Alan M. Grimaldi
Joseph P. Lavelle
Brian S. Seal
HOWREY LLP
1299 Pennsylvania Avenue, N.W.
Washington, DC 20004
Tel: (202) 783-0800

Richard L. Horwitz (#2246)
David E. Moore (#3983)
POTTER ANDERSON & CORROON LLP
Hercules Plaza, 6th Floor
1313 North Market Street
P. O. Box 951
Wilmington, DE 19899-0951
Tel: (302) 984-6000
rhhorwitz@potteranderson.com
dmoore@potteranderson.com

*Attorneys for Defendant
Acushnet Company*

Dated: November 17, 2006
Public Version Dated: November 27, 2006
764031/28946

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	BRIDGESTONE’S “BACKGROUND OF THE TECHNOLOGY”	1
III.	PROPOSED CLAIM CONSTRUCTIONS IN BRIDGESTONE’S PATENTS	2
A.	U.S. Patent No. 5,252,652.....	2
1.	“a base rubber selected from the group consisting of polybutadiene rubber, natural rubber, polyisoprene rubber, and styrene-butadiene rubber”	2
2.	“about”	4
B.	U.S. Patent No. 5,553,852.....	8
1.	“a thickness of at least 1 mm” and “a thickness of 1 to 3 mm”	8
C.	U.S. Patent No. 5,743,817.....	9
1.	“cover consists of an ionomer resin as a resin component”	9
D.	U.S. Patent No. 6,679,791.....	10
1.	“gradually increases”	10
a.	“a hardness at the center and a hardness at the surface thereof which is greater than the hardness at the center thereof”	12
E.	U.S. Patent No. 6,634,961.....	15
1.	“having a viscosity η at 25° C as a 5 wt % solution in toluene of up to 600 mPa·s”	15
2.	“base rubber composed of (a) 20 to 100 wt % of a polybutadiene...satisfying the relationship: $10B+5 \leq A \leq 10B+60$, wherein A is the Mooney viscosity (ML1+4 (100°C)) of the polybutadiene and B is the ratio M_w/M_n between the weight-average molecular weight M_w and the number-average molecular weight M_n of the polybutadiene”	17

3.	“(b) 0 to 80 wt % of a diene rubber other than component(a)”	17
4.	“which has a cis-1,4 content of at least 60% and a 1,2 vinyl content of at most 5%, has a Mooney viscosity(ML_{1+4} (100° C)) of not more than 55, and satisfies the relationship: $\eta \leq 20A-550$, wherein A is the Mooney viscosity (ML_{1-4} (100° C)) of the second polybutadiene and η is the viscosity of the second polybutadiene, in mPa·s, at 25°C as a 5 wt % solution in toluene.”	18
IV.	PROPOSED CLAIM CONSTRUCTIONS IN ACUSHNET’S PATENTS	18
A.	U.S. Patent Nos. 4,729,861, 4,936,587, and 5,080,367	18
1.	“edge”	18
2.	“determining the dimple number, dimple diameter and dimple depth by: (a) selecting the number of dimples to be used, the said number of dimples being between 182 and 392; (b) selecting a dimple diameter and dimple depth that satisfy the following relationship”	19
A.	U.S. Patent No. 6,818,705.....	21
1.	“a material [formed] from the conversion reaction of at least a cis-to-trans catalyst and a polybutadiene, wherein the material has a molecular weight of greater than about 200,000 and a resilience index of at least about 40”	21
2.	“resilience index”	22
V.	CONCLUSION.....	23

TABLE OF AUTHORITIES

CASES

<i>Abbott Labs. v. Baxter Pharm. Prods.</i> , 334 F.3d 1274 (Fed. Cir. 2003).....	2, 3, 9
<i>BJ Services Co. v. Halliburton Energy Services</i> , 338 F.3d 1368 (Fed. Cir. 2003).....	4
<i>Chef Am., Inc. v. Lamb Weston, Inc.</i> , 358 F.3d 1371 (Fed. Cir. 2004).....	20
<i>Chiron Corp. v. Genentech, Inc.</i> , 363 F.3d1247 (Fed. Cir. 2004).....	5-6
<i>Cooper Cameron Corp, v. Kvaerner Oilfield Prods.</i> , 291 F.3d 1317 (Fed. Cir. 2002).....	15
<i>Cultor Corp. v. A.E. Staley Mfg. Co.</i> , 224 F.3d 1328 (Fed. Cir. 2000).....	13
<i>Curtiss-Wright Flow Control Corp. v. Velan, Inc.</i> , 438 F.3d 1374 (Fed. Cir. 2006).....	14
<i>Eiselstein v. Frank</i> , 52 F.3d 1035 (Fed. Cir. 1995).....	5, 6
<i>Hoganas AB v. Dresser Indus.</i> , 9 F.3d 948 (Fed. Cir. 1993).....	4
<i>Hormone Research Found. V. Genetech, Inc.</i> , 904 F.2d 1558 (Fed. Cir. 1990).....	14
<i>Johnson & Johnson Assocs. Inc. v. R.E. Service Co., Inc.</i> , 285 F.3d 1046 (Fed. Cir. 2002).....	9, 10
<i>KCJ Corp. v. Kinetic Concepts, Inc.</i> , 223 F.3d 1351 (Fed. Cir. 2000).....	2
<i>Laitram Corp. v. Rexnord, Inc.</i> , 939 F.2d 1533 (Fed. Cir. 1991).....	14
<i>Liebel-Flarsheim Co. v. Medrad, Inc.</i> , 358 F.3d 898 (Fed. Cir. 2004).....	13

<i>Merck & Co. v. Teva Pharms. USA, Inc.</i> , 395 F.3d 1364 (Fed. Cir. 2005).....	20
<i>Novartis Pharms. Corp. v. Eon Labs Mfg.</i> , 215 F. Supp. 2d 452 (D. Del. 2002).....	7
<i>Pall Corp. v. Micron Separations</i> , 66 F.3d 1211 (Fed. Cir. 1995).....	6, 7
<i>Pfizer Inc. v. Ranbaxy</i> , 457 F.3d 1284 (Fed. Cir. 2006).....	21
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005).....	21
<i>Renishaw PLC v. Marposs Societa' Per Azioni</i> , 158 F.3d 1243 (Fed. Cir. 1998).....	16, 18, 23
<i>Toro Co. v. White Consol. Indus. Inc.</i> , 199 F.3d 1295 (Fed. Cir. 1999).....	13
<i>Vitronics Corp. v. Conceptoronic, Inc.</i> , 90 F.3d 1576 (Fed. Cir. 1996).....	18
<i>Wahpeton Canvas Co. v. Frontier, Inc.</i> , 870 F.2d 1546 (Fed. Cir. 1989).....	3
<i>Warner-Jenkinson Co. v. Hilton Davis Chem Co.</i> , 520 U.S. 17 (1997).....	3
<i>Watts v. XL Sys., Inc.</i> , 232 F.3d 877 (Fed. Cir. 2000).....	13

STATUTES

35 U.S.C. § 112.....	3, 5, 15
----------------------	----------

OTHER AUTHORITIES

MANUAL OF PATENT EXAMINING PROCEDURE, § 2173.05(h)	3
MERRIAM WEBSTER'S COLLEGIATE DICTIONARY (10 th Ed. 2000)	11

I. INTRODUCTION

Defendant/Counterclaim Plaintiff Acushnet Company (“Acushnet”) files this memorandum in further support of its proposed claim constructions.

Unlike Acushnet’s proposed constructions, Plaintiffs/Counterclaim Defendants Bridgestone Sports Co., Ltd. and Bridgestone Golf, Inc. (collectively, “Bridgestone”) seek repeatedly and improperly to broaden the claims of their patents beyond the scope allowed by the United States Patent and Trademark Office (“PTO”). For example, Bridgestone argues that the simple term “a thickness of 1 to 3 mm” used in the ‘852 patent is broad enough to mean “under 1 mm or over 3 mm.” (D.I. 229 at 13). That is precisely the type of litigation-driven, self-serving construction that Federal Circuit case law prohibits. Bridgestone cannot use the *Markman* process as a “do over,” to try to get broader claims than the PTO allowed.

II. BRIDGESTONE’S “BACKGROUND OF THE TECHNOLOGY”

Acushnet first addresses certain rather gross mischaracterizations in Bridgestone’s “Background of the Technology.” First, Bridgestone baldly asserts that, in the early 1990s, it “led the way in providing a new kind of golf ball – one in which a solid rubber core (of one or multiple layers) replaced the combination of a small central rubber core and layer of high-tension rubber thread.” (D.I. 229 at 3). In reality, Acushnet had been making just such a solid rubber core golf ball since 1981 under the Pinnacle brand. *See* Ex. 1 (Boehm Dep. at 165:16-21). Bridgestone’s attempt to posture itself as the “inventor” of solid-core golf balls is actually quite disingenuous.

Bridgestone makes the equally unsupported statement that its’ solid core Altus Newing ball “quickly became very popular, and set the standard of solid golf ball construction for years to come.” (D.I. 229 at 3). The reality is quite different. While the Altus Newing was somewhat popular in Japan, it was never sold in the United States. By contrast, Acushnet’s Pinnacle Gold golf ball was one of the most popular solid golf balls

worldwide in the 1980s and 1990s. In 1991, Acushnet introduced the Titleist HVC, its first solid core golf ball under the Titleist brand. By 1994, half of Acushnet's Titleist product line had solid cores. For decades, Acushnet's "Titleist" brand of golf balls have been recognized as "the No. 1 Ball in Golf" based on their quality, technology, and acceptance by many of the better professional players.

The Court should be very suspect of Bridgestone's efforts to claim the mantle of the "inventor" of solid construction golf balls. Solid construction golf balls are very old in the art and the Bridgestone patents are narrow improvements. Indeed, Acushnet believes that many of these patents will be proved to be invalid in light of the prior art.

III. PROPOSED CLAIM CONSTRUCTIONS IN BRIDGESTONE'S PATENTS

A. U.S. Patent No. 5,252,652

1. **"a base rubber selected from the group consisting of polybutadiene rubber, natural rubber, polyisoprene rubber, and styrene-butadiene rubber"**

Acushnet's definition of the term "consisting of" as used in this claim means that the claim covers the use of one *and only one* base rubber selected from the group of polybutadiene rubber, natural rubber, polyisoprene rubber, and styrene-butadiene rubber. (See D.I. 228 at 1). Bridgestone, on the other hand, purports to rely on the plain meaning of the claim. Bridgestone's argument is wrong as a matter of law. Bridgestone ignores the specialized legal meaning of the claim terms used in the "Markush" group.

A Markush group is a way of claiming a group of alternative components for a claim element, typically expressed in the form: "a member selected from the group *consisting of* A, B, and C." *Abbott Labs. v. Baxter Pharm. Prods.*, 334 F.3d 1274, 1280 (Fed. Cir. 2003) (emphasis added). The term "consisting of," when used with a Markush group, means that the claim is limited to one (and only one) of the members listed in the Markush group. See *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed.

Cir. 2000); MPEP § 2173.05(h). The phrase “a base rubber selected from the group consisting of ...” in claim 1 defines a Markush group. Thus, the claim covers the use of only one of the base rubber types listed.

Bridgestone contends that the base rubber should not be limited to only one of the listed rubbers because claim 1 uses the open-ended indefinite article “a.” (D.I. 229 at 9). As noted above, however, when used as part of a Markush group, the indefinite article “a” together with the phrase “consists of” is not open-ended. *See Abbott Labs.*, 334 F.3d at 1280.¹

Claims 9 and 10 do not change the otherwise plain meaning of claim 1. (Claim 10, in fact, is not even an asserted claim.) By statute, a dependent claim must include all of the limitations contained in the claim from which it depends. *See* 35 U.S.C. § 112, ¶ 4. Here, the independent claim does not include blends of base rubbers. To the extent that either dependent claim purports to cover a blend, the claim is hopelessly indefinite. The claim in effect claims “a base rubber selected from the group of only A, or only B, or only C, where the base rubber is A and another element.” Such claims, containing hopeless internal contradictions, are invalid under § 112. *See Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1552 (Fed. Cir. 1989). The proper construction of claim 1 cannot be predicated on invalid dependent claims. The claims are poorly drafted, to be

¹ Bridgestone also relies on claim 1’s use of the open-ended terms “comprising” and “containing.” (D.I. 229 at 9). To the extent those terms purport to cover rubbers other than the member chosen from the Markush group, they would read the Markush group limitation out of the claim. Such a result is contrary to the well-settled patent law principle that each limitation in a patent claim must be respected. *See Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1997) (“Each element contained in a patent claim is deemed material to defining the scope of the patented invention”). For example, the claims at issue in *Abbott Labs.* included the open-ended term “comprising” before the *Markush* group language. *See Abbott Labs.*, 334 F.3d at 1276. The court nevertheless held that the plain meaning of the *Markush* language limited the claims to “a single [member] selected from the recited Markush group.” *Id.* at 1281.

sure. Bridgestone, however, is not entitled to rewrite the claims through the *Markman* process. See *Hoganas AB v. Dresser Indus.*, 9 F.3d 948, 951 (Fed. Cir. 1993).

Because Bridgestone's proposed construction of "plain meaning" ignores the specialized legal meaning of the Markush group, the phrase "a base rubber selected from the group consisting of polybutadiene rubber, natural rubber, polyisoprene rubber, and styrene-butadiene rubber" should be construed to mean that one and only one base rubber may be selected from the group of listed base rubbers, as required by law.

2. "about"

Acushnet's Proposed Definition: Approximately, as would be understood by those skilled in the art to mean the precision with which the quantity the term is used to modify can be measured. (D.I. 228 at 3).

Bridgestone's Proposed Definition: Approximately, in the stylistic and technological context in which it is used. (D.I. 228 at 3).

As noted in Acushnet's opening memorandum, the proper construction of the term "about" is governed by the decision in *BJ Services Co. v. Halliburton Energy Services*, 338 F.3d 1368 (Fed. Cir. 2003). There, the disputed claim term was "a [value] of about 0.06 percent by weight." *Id.* at 1372. The district court held, and the Federal Circuit affirmed, that the term "about" was "intended to encompass the range of experimental error that occurs in any measurement." *Id.* at 1372-73. Here also, the plain meaning of the term "about" refers to measurements of parts by weight and should be understood to refer to the range of experimental error that occurs when taking the measurements.

In its effort to broaden the meaning of the term "about," Bridgestone purports to rely on the intent of the inventors. For example, Bridgestone states that "[i]f the inventors had intended to define a more precise limit ... they could have ... simply not used the word 'about.'" (D.I. 229 at 11). This is a curious argument because, in fact, the *inventors did not use the word "about"* in their original application. [REDACTED]

Thus, the actual language used by the inventors conclusively supports Acushnet's proposed definition. The inventors never intended to state broad, loose ranges. They were very precise with the ranges they stated. The inventors never used the term "about" to describe the ranges of their invention.


In reality, the term “about” was added into the U.S. application when the Japanese patent application was filed in the U.S. Indeed, “about” was added by the same team of patent attorneys who now represent Bridgestone in this litigation. *See* Ex. 4 (App. No. 07/521,618, Original Application at 3-5). “About” is thus a lawyer’s term, not the inventors’ term at all.

Additionally, Bridgestone relies on the filing date of the Japanese application as the '652 patent's priority date. *See* Ex. 5 (Pls.' 8th Supp. Response to Def.'s Interrog. No. 6). To do so, the claims of the U.S. patent cannot extend beyond that which was disclosed by the inventors in that Japanese application. *See Eiselstein v. Frank*, 52 F.3d 1035, 1040 (Fed. Cir. 1995). Otherwise, the '652 would not be entitled to claim priority to the foreign filing date and, in fact, would be invalid under 35 U.S.C. § 112. *See id.* Bridgestone cannot have it both ways. If the '652 is to be entitled to the Japanese filing date, the term "about" cannot materially broaden the claim beyond the precise ranges stated in the Japanese patent application. *See Chiron Corp. v. Genentech, Inc.*, 363 F.3d

1247, 1253-54 (Fed. Cir. 2004); *Eiselstein v. Frank*, 52 F.3d 1035, 1040 (Fed. Cir. 1995). Hence Bridgestone's construction should be rejected.

Bridgestone's reliance on *Pall Corp. v. Micron Separations*, 66 F.3d 1211 (Fed. Cir. 1995) is also misplaced. In that case, the court was asked to determine whether the claimed range of ratios from "about 5:1 to about 7:1" for nylon resins covered the ratio of 4:1. *Id.* at 1217. In *Pall Corp.*, the court stated that the permissible range encompassed by the term "about" "must be interpreted in its technologic and stylistic context." *Id.* The court, however, then proceeded to consider how the term "about" was used in the patent specification, the prosecution history, and the other claims. *Id.* The court also considered extrinsic evidence in the form of the inventor's testimony. *Id.* The court concluded that the claimed range of "about 5:1 to about 7:1" did not literally encompass 4:1. *See id.* at 1218. The court based its conclusion on the inventor's testimony that he never tested ratios between 3:1 and 5:1. *See id.*

A full analysis of *Pall Corp.* rebuts Bridgestone's contention that the term "about" should greatly expand the claim term "about 2" regarding the amount of the sulfur compound covered by the claims. First, all of the examples in the specification of the '652 patent disclose the use of a sulfur compound (there, zinc pentachlorothiophenol, or "ZnPCTP") in an amount of only 0.2 parts by weight. *See* Ex. C ('652 Pat., Col. 4, ll. 7-21 (Table 1); ll. 46-60 (Table 2))². There is no discussion of any tests using ZnPCTP or any other sulfur compound at 2 parts by weight and no example using more than 2 parts by weight.

. *See* Ex. 2 (Egashira Dep., 8/29/06, at 57:10-58:19); Ex. 6 (Takahashi Dep., 8/22/06, at 127:12-21); Ex. 7 (Tomita Dep., 9/26/06, at 73:11-14). In fact, another Bridgestone

² Unless otherwise indicated, alphabetic exhibit designations, *i.e.*, "Ex. A," refer to the exhibits to Acushnet's Opening Brief (D.I. 230). Exhibits unique to the instant brief use numeric designations, *i.e.*, "Ex. 1."

patent-in-suit lists several sulfur compounds, including ZnPCTP, and states that they are “typically included in an amount of at least 0.4 part [sic] by weight, and preferably at least 0.6 part by weight, but not more than 2.0 parts by weight” Ex. L (‘791 Pat., Col. 2, ll. 50-61). Thus, applying the teachings of *Pall Corp.*, the Court should reject Bridgestone’s efforts to broaden the scope of the term “about” used to modify the limitation relating to the amount of sulfur compound.

Bridgestone further purports to rely on *Novartis Pharms. Corp. v. Eon Labs Mfg.*, yet attempts to broaden the claim language far beyond the range allowed in that case. In *Novartis*, this Court held that a claimed range of “about 1:300 to about 1:1500” covered the range of “1:250 to 1:1549” – an increase of only 4.16% of the claimed range on both ends. *See Novartis Pharms. Corp. v. Eon Labs Mfg., Inc.*, 215 F. Supp. 2d 452, 456-57 (D. Del. 2002). Here, Bridgestone asks the court to construe “about 2” to literally cover 2.5 – thus extending the range by more than 33% at the upper end. (*See* D.I. 229 at 12 n.3). As discussed above, such a broadening of the range goes far beyond any intent evidenced by the inventors in their original application.

Thus, Acushnet’s proposed construction of the term “about” to mean a level of measurement precision best comports with *the inventors’* intent. As a result, the Court should construe the term “about” for the ‘652 patent as proposed by Acushnet in the Joint Claim Chart to mean “approximately, as would be understood by those skilled in the art to mean the precision with which the quantity the term is used to modify can be measured.”

B. U.S. Patent No. 5,553,852**1. “a thickness of at least 1 mm” and “a thickness of 1 to 3 mm”**

Under any reasonable plain meaning, the terms “a thickness of at least 1 mm” and “a thickness of 1 to 3 mm” are clear and unambiguous limits to precise ranges.³ In the first case, “a thickness of at least 1 mm” excludes any measurement below 1 mm. In the second case, “a thickness of 1 to 3 mm” excludes any measurement below 1 mm or above 3 mm.

Bridgestone, however, argues in its brief that “a thickness could be under 1 mm or over 3 mm and still satisfy the claim language of ‘1 to 3 mm.’” (D.I. 229 at 13). Not only does that argument defy common sense, it also contradicts the specification of the ‘852 patent. In describing the invention, the ‘852 patent states that “[a] cover more than 3 mm thick is low in repulsion whereas a cover less than 1 mm thick is low in durability such as cut resistance.” Ex. T (‘852 Pat., Col. 3, ll. 60-62). With regard to the intermediate layer, it states that “[w]ith a thickness of less than 1 mm, repulsion is lowered to reduce flying distance.” Ex. T (‘852 Pat., Col. 3, ll. 32-33). Thus, in addition to defying the plain meaning, Bridgestone’s efforts to expand those ranges through any perceived “imprecision” runs afoul of the specification and should be rejected.

Thus, to avoid any ambiguity, Acushnet requests that the Court reject Bridgestone’s absurd position and construe the terms so that the claimed ranges mean what they say – “at least 1 mm” means a thickness that is no less than 1.0 mm and “a thickness of 1 to 3 mm” means a thickness of 1.0 to 3.0 mm.

³ Bridgestone itself concedes that the terms in these limitations “are not technical terms, or terms whose meanings were somehow altered or redefined in the specification.” (D.I. 229 at 13).

C. U.S. Patent No. 5,743,817

1. “cover consists of an ionomer resin as a resin component”

Bridgestone argues that the term “cover consists of an ionomer resin as a resin component” allows blends of ionomer resins. (*See* D.I. 229 at 16). Bridgestone’s proposed claim construction fails because it ignores both: (1) the specialized legal meaning of the claim language used and (2) the limiting statements made by the patentees to the United States Patent and Trademark Office (“PTO”) during the prosecution of the ‘817 patent.

The ‘817 patent claims a golf ball with a cover, where the “cover consists of an ionomer resin as a resin component.” Ex. I (‘817 Pat., Col. 6, ll. 54-55). The parties agree that the term “consists of” has a specialized legal meaning that signifies a closed list. (*See* D.I. 229 at 15). The parties further agree that, as a result, the resin component of the cover must be ionomer resin and cannot include non-ionomeric resins. (*See* D.I. 229 at 15) (“In other words, the ‘resin component’ of the golf ball cover can only be ‘ionomer resin’ (as opposed to non-ionomeric resin.”).

The parties dispute whether the cover can include any constituents other than an ionomer resin and also dispute whether the resin component of the cover can include *blends* of ionomer resins. As noted in Acushnet’s opening memorandum, the applicant could have claimed a cover made from a blend of ionomer resins, as the specification includes a number of references to “mixtures of ionomer resins.” *See, e.g.*, Ex. I (‘817 Pat., Col. 4, ll. 44-54). The applicant, however, opted for more restrictive claim language. The use of the term “consisting of” to limit the “ionomer resin” component limits the claim to only a single ionomer resin and not to a blend of ionomers or of ionomeric and non-ionomeric resins. *See Abbott Labs.*, 334 F.3d at 1281. Bridgestone and its legal team do not get a “do over” in this Court to try to undo the decisions made in the PTO and on which the public, including Acushnet, is entitled to rely. *See Johnson &*

Johnston Assocs. Inc. v. R.E. Service Co., Inc., 285 F.3d 1046, 1052, 1054 (Fed. Cir. 2002) (“Both the Supreme Court and this court have adhered to the fundamental principle that claims define the scope of patent protection.... The claims give notice both to the examiner at the U.S. Patent and Trademark Office during prosecution, and to the public at large, including potential competitors, after the patent has issued....when a patent drafter discloses but declines to claim subject matter, as in this case, this action dedicates that unclaimed subject matter to the public.”) (citations omitted).

Bridgestone notes that the narrow construction it chose in the PTO would exclude all of the examples provided in the specification. (D.I. 229 at 16). While, in hindsight, that outcome may be regrettable to Bridgestone and to the attorneys who drafted the claim language, the result is compelled by the restrictive language Bridgestone chose to use when drafting and amending the claim. Having limited the claim through the use of terms with specialized legal meanings, Bridgestone may not now broaden the scope of the claims in litigation, after Acushnet and the public have relied on the narrower language the applicants used to claim their invention.

Thus, the proper interpretation of the term “consists of an ionomer resin as a resin component,” as a matter of settled patent law, is that the resin component of the cover includes only one grade of ionomer resin, though the cover can include other non-resin components.

D. U.S. Patent No. 6,679,791

1. “gradually increases”

Bridgestone’s discussion of the term “slope” avoids the claim construction issue presented here, and instead seeks to obscure the correct meaning of the term “gradually increases.” Relying on a NASA web page, Bridgestone seeks to obscure this issue by relying on a convoluted definition for the simple term “slope.” The following common

definition of the term “slope” is much more intuitive and understandable than the definition Bridgestone selected from NASA’s web site:⁴

slope: 1: upward or downward slant or inclination or degree
of slant

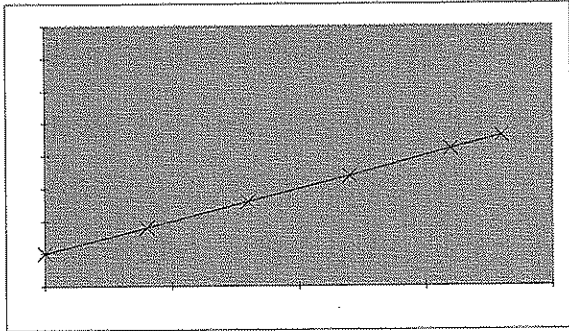
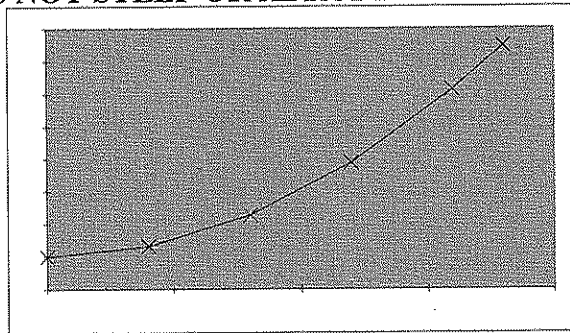
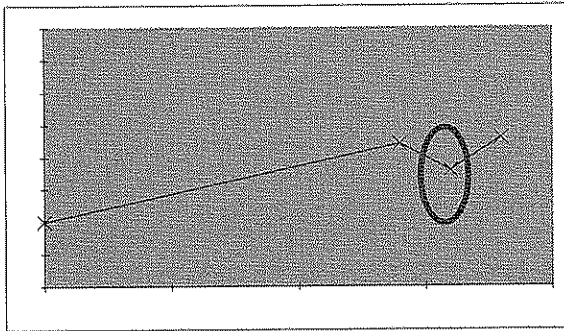
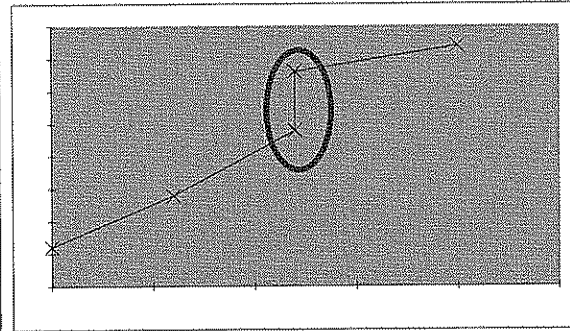
Ex. 8 (MERRIAM WEBSTER’S COLLEGIATE DICTIONARY 1102 (10th ed. 2000)).

Those skilled in the golf ball art often refer to a golf ball’s hardness profile in terms analogous to terrains – plains, hills, and slopes. For example, the ‘791 patent uses the term “flat” to describe a hardness profile. Ex. L (‘791 Pat., Col. 6, l. 5). The Nakamura reference, distinguished during prosecution, also mentioned “flat.” Ex. R (‘833 Pat., Col. 4, l. 41; Col. 5, ll. 42). Bridgestone’s own documents contain multiple references by its engineers to “flat” and “steep” hardness profiles.⁵

The term slope, therefore, is used analogously to the term “incline” in this art. An “increasing slope” is one in which the core hardness gets higher with increasing distance from the core center (as distinguished from a “decreasing slope” which becomes lower with distance). The import of the definition “a slope which increases and is neither steep nor abrupt” reflects that the difference in hardness between two given points is gradual, i.e., that is “neither steep not abrupt.” A gradually increasing hardness profile is more like a gentle incline than a steep mountain face. The following examples illustrate this point:

⁴ Bridgestone has offered no explanation of how the internet site, dated almost five years after the priority date of the ‘791 patent, and authored by a NASA employee, is informative of the meaning of a term to one of ordinary skill in the golf ball art. Dr. Shelton, whose name appears on Bridgestone’s Exhibit N, does not appear to have any relation to the golf ball art. *See* Ex. 9 (<http://www.nasa.gov/centers/johnson/news/releases/2003/j03-109.html>) (last visited Nov. 17, 2006).

⁵ *See, e.g.*, Ex. 10 (BSP155972 ([REDACTED])); Ex. 11 (BSP 170605 ([REDACTED])).

INCREASES AND IS NOT STEEP OR ABRUPT**Figure 1****Figure 2****INCREASES, BUT IS STEEP OR ABRUPT****Figure 3****Figure 4**

Figures 1 and 2 are examples of slopes that gradually increase as they move along the X axis. Fig. 3 shows a slope that has an abrupt change in its incline (the decreased area, circled in red), while Fig. 4 shows a slope with a segment that is both steep and abrupt. Thus, Figures 1 and 2 “gradually increase” while Figures 3 and 4 do not. Thus, the identification of a slope that increases, but is not steep or abrupt, is not complicated, despite Bridgestone’s attempts to make it so.

- a. **“a hardness at the center and a hardness at the surface thereof which is greater than the hardness at the center thereof”**

Bridgestone incorrectly characterizes the patent’s requirement that the core hardness “gradually increases” as a mere “exemplary embodiment.” (D.I. 229 at 20). In

reality, the patent calls this gradual increase a “*critical element*” of the invention. Bridgestone may no more rewrite the specification of this patent than the claims, even if it now regrets its use of this phrase, too.

Bridgestone relies upon *Liebel-Flarsheim Co. v. Medrad, Inc.* for the limited proposition that it is improper to import a limitation from an exemplary embodiment into a claim. (See D.I. 229 at 20). In *Liebel-Flarsheim*, the court addressed whether a statement in the specification creates a definition that limits the claim or is merely a description of a preferred embodiment, which is not limiting. See generally *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 903 (Fed. Cir. 2004). The court noted that there are specific reasons to limit a claim to a particular structure of a single embodiment in individual cases. See *id.* at 906-07. One such case is when the inventor limits the invention to a particular structure by requiring that the invention uses that structure. See *id.* (citing *Watts v. XL Sys., Inc.*, 232 F.3d 877, 883 (Fed. Cir. 2000)). For example, stating that a particular structure is “important to the invention” limits the claims. *Id.* at 908 (quoting *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1301 (Fed. Cir. 1999)). Distinguishing prior art during prosecution by characterizing one’s invention narrowly likewise limits the scope of a claim. *Id.* at 907 (citing *Cultor Corp. v. A.E. Staley Mfg. Co.*, 224 F.3d 1328, 1330 (Fed. Cir. 2000)). Therefore, whether a claim must be limited to a specific embodiment presented in the specification depends on the specificity of the description of the invention and on the prosecution history. *Id.*

In the ‘791 patent, the patentee has specifically defined the invention to include a “gradually increasing” hardness profile. In fact, the “Detailed Description of the Invention” clearly states that the core “*has a JIS-C hardness which gradually increases radially outward from the center C to the surface S.*” Ex. L (‘791 Pat., Col. 2, ll. 6-9) (emphasis added). Later in the “Detailed Description of the Invention,” the patentee unambiguously states that it is “critical” to the invention for the core to have such a profile:

It is critical for the core to have an optimized hardness profile in which the hardness gradually increases radially outward from the center toward the outside edge or surface of the core. That is, the core has a higher hardness at the surface than at the center.

Ex. L ('791 Pat., Col. 3, l. 26).⁶

During prosecution, the patentee also distinguished two prior art references for failing to disclose a “gradually increasing” core hardness. The Moriyama and Nakamura references cited by the examiner had core hardnesses at the surface which were higher than at the center. *See* Ex. Q ('872 Pat., Col. 2, ll. 6-8); Ex. R ('833 Pat., Col. 2, l. 10-16). The patentee distinguished both, however, for failing to disclose a “gradually increasing” hardness profile in the core. *See* Ex. O (January 29, 2003 Amendment at 7).

The use of different language to describe the invention in claims 1, 13, and 24 does not allow the claims to be construed to cover structures beyond the scope of the invention as set out in the specification. Bridgestone's reliance on *Curtiss-Wright* is also misplaced. (*See* D.I. 229 at 21). While there is a “presumption that each claim in a patent has a different scope,” the Federal Circuit in *Curtiss-Wright* noted that “two claims with different terminology can define the exact same subject matter.” *Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380 (Fed. Cir. 2006). Indeed, it is not unusual for separate claims to define the same invention using different terminology. *See id.* (quoting *Hormone Research Found. v. Genetech, Inc.*, 904 F.2d 1558, 1567 n. 15 (Fed. Cir. 1990)). In such contexts, “claim differentiation is a guide, not a rigid rule.” *Id.* at 1381 (quoting *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1538 (Fed. Cir. 1991)).

⁶ Bridgestone suggests that this statement means simply that a core with a hardness profile that “gradually increases” is a core with “a higher hardness at the surface than at the center.” (D.I. 229 at 18) (citing Ex. L ('791 Pat., Col. 3, ll. 26-28)). This reading is not plausible. It is possible for a core to have a higher hardness value at the surface than at the center without a gradual increase between the two. Hence, the statement in question refers to more than the difference between the hardness values at the center and surface of the core.

Indeed, it is well settled that claim differentiation can not broaden claims beyond their correct scope. *See id.*

In this case, independent claims 1, 13, and 24 differ in more than just the description of hardness profile. Claim 13 adds the limitation that a JIS-C hardness scale be used to measure the difference between the core and the intermediate layer hardness. *See* Ex. L ('791 Pat., Col. 9, l. 45). Claim 24 adds the limitation that the cover have a Shore D hardness of 45 to 58. *See* Ex. L ('791 Pat., Col. 10, l. 36). Therefore, construing “a hardness at the center and a hardness at the surface thereof which is greater than the hardness at the center thereof” in light of the specification to require “gradually increasing” would not render any claim language superfluous.

Unless the term “gradually increasing” is recognized as a limitation of claims 13 and 24, those claims will be invalid under 35 U.S.C. § 112. *See Cooper Cameron Corp. v. Kvaerner Oilfield Prods.*, 291 F.3d 1317, 1323 (Fed. Cir. 2002) (“a broad claim is invalid when the entirety of the specification clearly indicates that the invention is of a much narrower scope”).

Here, the specification narrowly limits the invention to golf ball cores with hardness profiles that are “gradually increasing” – a “critical” element of the invention – and claims 13 and 24 should not be construed to be broader than that scope. Whether or not the claims differ from one another, however, none of the claims can be broader than what is disclosed in the specification. *See id.* The patentee has emphasized that a “gradually increasing” hardness profile is a critical aspect of his invention and the claims should be construed accordingly.

E. U.S. Patent No. 6,634,961

- 1. “having a viscosity η at 25° C as a 5 wt % solution in toluene of up to 600 mPa·s”**

Bridgestone contends that the specification’s definition of this claim term should not control because the definition allegedly relates to merely an “exemplary

embodiment.” Bridgestone is wrong. The definition in the specification does not pertain to an “exemplary embodiment.” Rather, it defines the “golf ball of the invention.” The specification states that the golf ball of the invention has a “*viscosity η at 25°C as a 5 wt % solution in toluene of up to 600 mPa·s.*” The patent further stipulates that

the value in mPa·s units obtained by dissolving 2.28g of the polybutadiene to be measured in 50 mL of toluene and carrying out measurement with a specified viscometer at 25°C using a standard solution for the viscometer (JIS Z8809).

Ex. H (‘961 Pat., Col. 3, lines 5-13). Nothing in the patent or its prosecution history suggests that this definition was optimal or limited to an exemplary embodiment.

Bridgestone argues that the definition should not apply because there is no indication that the particular parameters of the definition are “necessary to the claimed invention.” (D.I. 229 at 23). Definitions are applicable to construe a claim, however, regardless of whether the definition is strictly “necessary.” The law states that a patentee can define claim terms in the specification and those definitions control. *See Renishaw PLC v. Marposs Societa’ Per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). There is no requirement that the definitions are first shown to be necessary to the invention.

The patentees specifically defined this claim language and in so doing informed the public exactly what it intended its claim language to mean. Therefore, Acushnet requests that the Court properly construe this claim language consistent with the definition provided in the specification.

2. **“base rubber composed of (a) 20 to 100 wt % of a polybutadiene...satisfying the relationship: $10B+5 \leq A \leq 10B+60$, wherein A is the Mooney viscosity(ML_{1+4} (100°C)) of the polybutadiene and B is the ratio M_w/M_n between the weight-average molecular weight M_w and the number-average molecular weight M_n of the polybutadiene”**

Acushnet proposes a construction that includes the definitions, provided in the specification, for this claim language. Bridgestone argues that such detail is not necessary because “a skilled artisan” would know what these claim terms mean.⁷

The determination of infringement, however, is not necessarily made by a skilled artisan. A jury of laypersons is unlikely to be familiar with such highly technical terms. Acushnet proposes a construction that provides additional definitional information from the specification to ease the burden on the jury. The instruction may also help the jury link testimony about the issues to the correct patent. Therefore, Acushnet requests that the Court adopt its proposed construction for this claim language.

3. **“(b) 0 to 80 wt % of a diene rubber other than component(a)”**

Acushnet’s proposed construction is consistent with the plain and ordinary meaning of this claim language, but provides more clarity for the jury. Therefore, Acushnet requests that the Court adopt its proposed construction.

⁷ For example, Bridgestone argues that “a skilled artisan would know that the “M” in the term (ML_{1+4} (100°C)) stands for the Mooney Viscosity and the “L” stands for large rotor ...” (D.I. 229 at 24).

4. “which has a cis-1,4 content of at least 60% and a 1,2 vinyl content of at most 5%, has a Mooney viscosity(ML_{1+4} (100° C)) of not more than 55, and satisfies the relationship: $\eta \leq 20A-550$, wherein A is the Mooney viscosity (ML_{1+4} (100° C)) of the second polybutadiene and η is the viscosity of the second polybutadiene, in mPa·s, at 25°C as a 5 wt % solution in toluene.”

Bridgestone argues that this claim language is “simple, straightforward and known to one of ordinary skill in the art,” and therefore should not be construed. This claim language, however, uses terms that were specifically defined in the specification, as explained above. The definitions from the specifications must be respected. *See Renishaw PLC*, 158 F.3d at 1249.

Acushnet’s proposed construction for this claim language is entirely consistent with its proposed constructions for the same language in claim 1, and incorporates the definitions provided by the specification. Therefore, Acushnet requests that the Court adopt its proposed construction for this claim language.

IV. PROPOSED CLAIM CONSTRUCTIONS IN ACUSHNET’S PATENTS

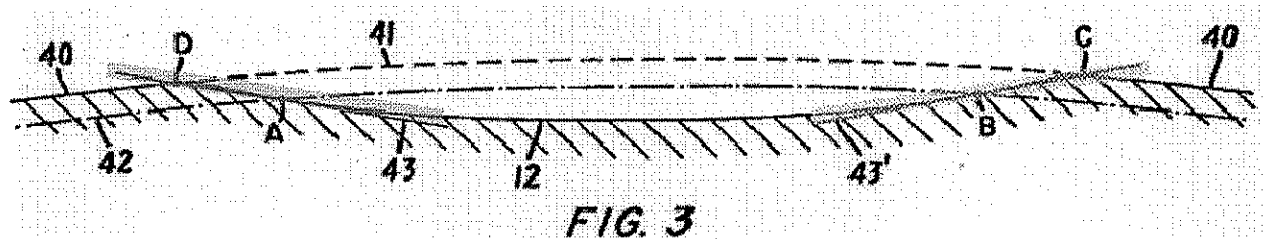
A. U.S. Patent Nos. 4,729,861, 4,936,587, and 5,080,367

1. “edge”

Bridgestone’s proposed definition is flawed because it robs the definition of its proper context. Claims are not read in a vacuum. Rather, they must be read in light of the specification, which is “the single best guide to the meaning of a disputed term.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

Here, the definition of “edge” as provided in the claims comes directly from the specifications of the three Lynch patents, which define “the edge of the dimple” as “the point of intersection of the periphery of the golf ball or its continuation and a tangent to the sidewall of the dimple at a point 0.003 inches below the periphery of the golf ball or its continuation” Ex. Y (‘861 Pat., Col. 10, ll. 45-50); Ex. Z (‘587 Pat., Col. 9, ll. 61-

66); Ex. AA ('367 Pat., Col. 9, l. 66 – Col. 10, l. 2). As shown in the figure below, however, that definition applies to the dimples in a two-dimensional cross-section, where the “edge” is shown as points C and D:



Because the dimples on a golf ball, however, are not mere cross-sections, the edge of the dimple as a whole is the sum of all such intersections, which collectively circumscribe the dimple on the outer surface of the golf ball. Thus, the definition of the term “edge” should reflect that distinction, as Acushnet’s definition seeks to do.


2. **“determining the dimple number, dimple diameter and dimple depth by: (a) selecting the number of dimples to be used, the said number of dimples being between 182 and 392; (b) selecting a dimple diameter and dimple depth that satisfy the following relationship”**

Bridgestone is apparently attempting to rewrite the claim language such that one must *use* the “S” value equation to determine the dimples and depths for the dimples to be placed on the golf ball. (D.I. 229 at 29-31) (emphasis added). The distinction between the parties’ proposed constructions is critical, as Bridgestone’s proposed construction would require it to use the S value equation in order to infringe the ‘861 patent. The claim includes no such requirement, however. Instead, the claim requires only that the selected dimple diameters and depths *satisfy* the S value equation. See Ex. Y ('861 Pat., Col. 9, ll. 67-68).

Nor does the prosecution history support Bridgestone’s attempt to redraft the claims. The patentees’ responses to the PTO cited by Bridgestone state merely that the dimple diameters and depths must be selected before the dimples are placed on the golf

ball. See Ex. R to D.I. 229 (Response to Office Action, June 10, 1986, at 22); Ex. S to D.I. 229 (Response to Office Action, Jan. 12, 1987, at 2). There is no requirement anywhere that one must *use* the S value equation in deriving those dimples and depths.

Finally, Bridgestone mischaracterizes the testimony of Dr. Francis Lynch, a named inventor on the '861 patent, in an attempt to support its position. Contrary to Bridgestone's assertion, Dr. Lynch did not testify that "for the purposes of the alleged invention, the method includes using the 'S' equation to determine the range of what would be an acceptable dimple diameter and depth relationship." (D.I. 229 at 31).

 Ex. U to D.I. 229 (Lynch Dep. at 61:12-62:22). Thus, the question assumed Bridgestone's premise that one had to use the equation to derive the required dimple diameters and depths and Dr. Lynch responded accordingly.

Bridgestone's proposed construction is an improper rearrangement of the words that offers no additional insight into the meaning of the phrase, even if such additional insight were required. In effect, Bridgestone asks the Court to redraft the language of the claim, without providing any justification for doing so. Absent any need for interpretation, Bridgestone's request violates the "well-established rule that 'courts may not redraft claims.'" *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1380 (Fed. Cir. 2005) (quoting *Chef Am., Inc. v. Lamb Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004)). Thus, the Court should apply the plain meaning of this term as proposed by Acushnet.

A. U.S. Patent No. 6,818,705

- 1. “a material [formed] from the conversion reaction of at least a cis-to-trans catalyst and a polybutadiene, wherein the material has a molecular weight of greater than about 200,000 and a resilience index of at least about 40”**

Bridgestone’s proposed definition fails because it improperly imports a limitation from a preferred embodiment in the specification. It is improper to import limitations from the specification into the claims “unless the patentee clearly ‘intends for the claims and the embodiments in the specification to be strictly coextensive.’” *Pfizer Inc. v. Ranbaxy*, 457 F.3d 1284, 1290 (Fed. Cir. 2006), quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005). Here, the patent states that the cis-polybutadiene “preferably may be converted to the trans-isomer during the molding cycle.” Ex. V (‘705 Pat., Col. 12, ll. 23-28). There is no clear intent, however, to limit the claims to that preferred embodiment. Instead, by stating that the cis-to-trans conversion “preferably may be converted” during the molding cycle, the patent indicates that the conversion may occur elsewhere. Thus, the specification supports a broader construction than the narrow interpretation offered by Bridgestone.

Here again, Bridgestone mischaracterizes the testimony of an Acushnet witness in order to support its flawed construction. Bridgestone incorrectly states that “Acushnet admitted through its corporate designee, Mr. Bissonnette, who was one of the inventors of the ‘705 Patent, that ‘a material’ referred to a ‘cured material.’” (D.I. 229 at 32). The testimony cited by Bridgestone, however, clearly states that Mr. Bissonnette was asked for his personal opinion on the term “a material,” not Acushnet’s opinion from a corporate designee. (D.I. 229 at 32) (quoting Bissonnette Dep., 6/6/06, at 191:19 (“I’m asking for your personal opinion on what material means in claim one.”)). In addition, Mr. Bissonnette further testified [REDACTED]

. See Ex. 12

(Bissonnette Dep., 6/6/06, at 202:22-205:4) (“[REDACTED]”)

[REDACTED]).

Thus, rather than “admitting” to Bridgestone’s improper construction, Mr. Bissonnette’s testimony confirms Acushnet’s proposed definition.

Just recently, Bridgestone deposed Mr. Bissonnette in his personal capacity and again questioned him on where in the manufacturing process the cis-to-trans conversion occurs. Mr. Bissonnette testified that [REDACTED]

[REDACTED] Ex. 13 (Bissonnette 11/15/06 Dep. (rough) at 162:10-21).

Thus, the Court should apply the plain meaning of “material,” which in both instances refers to an uncured blend of a cis-to-trans catalyst and a polybutadiene.

2. “resilience index”

Bridgestone’s proposed definition fails because it ignores a substantial portion of the express definition provided by the inventors. Bridgestone simply disregards the second half of the inventors’ express definition, without providing any reasonable basis for doing so. Here, the inventors provided a “definitions” section of the ‘705 patent in which they expressly define “resilience index” by specific and unambiguous reference to the instrument and settings to be used when measuring the index.

Bridgestone mischaracterizes the patentee’s definition as “nothing more than an exemplary embodiment of a way to measure ‘resilience index.’” (D.I. 229 at 37). There is no indication from the patent or its prosecution history that this definition was in any way limited to an exemplary embodiment. To the contrary, the language of Acushnet’s proposed construction, including the requirement that “[t]he loss tangent *is* measured using an RPA 2000,” comes directly from the “definitions” section of the patent. Ex. V (‘705 Pat., Col. 11, ll. 13-26) (emphasis added).

Bridgestone further argues that the definition should not apply because there is no indication that the use of the RPA 2000 is “critical or necessary to determine ‘resilience index.’” (D.I. 229 at 37). As shown above, the inventors established its necessity by expressly defining “resilience index” such that “loss tangent *is* measured using an RPA 2000.” Ex. V (‘705 Pat., Col. 11, ll. 13-26). In any event, as stated above with regard to the ‘961 patent, it is not Acushnet’s burden to prove that the definition provided by the patentees is necessary. The law states that a patentee can define claim terms in the specification and those definitions control. *See Renishaw PLC*, 158 F.3d at 1249. There is no requirement that the definitions are first shown to be necessary to the invention.

The patentees specifically defined this claim language and in so doing informed the public exactly what it intended its claim language to mean. Therefore, Acushnet requests that the Court properly construe this claim language consistent with the definition provided in the specification. Because the inventors provided an express definition with the requisite clarity, deliberateness, and precision, the Court should construe the term “resilience index” in accordance with the inventors’ stated definition.

V. CONCLUSION

For the reasons set forth above, Acushnet respectfully requests that the Court construe the disputed terms as proposed by Acushnet in the Joint Claim Chart.

Respectfully submitted,

POTTER ANDERSON & CORROON LLP

OF COUNSEL:

Alan M. Grimaldi
Joseph P. Lavelle
Brian S. Seal
HOWREY LLP
1299 Pennsylvania Avenue, N.W.
Washington, DC 20004
Tel: (202) 783-0800

By: /s/ David E. Moore
Richard L. Horwitz (#2246)
David E. Moore (#3983)
Hercules Plaza, 6th Floor
1313 North Market Street
P. O. Box 951
Wilmington, DE 19899-0951
Tel: (302) 984-6000
rhhorwitz@potteranderson.com
dmoore@potteranderson.com

-and-

Attorneys for Defendant Acushnet Company

Robin D. Adelstein
Attorney At Law
193 Ivy Street
Oyster Bay, NY 11771
Tel: (516) 922-7631

Dated: November 17, 2006
Public Version Dated: November 27, 2006
764031/28946

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

CERTIFICATE OF SERVICE

I, David E. Moore, hereby certify that on November 27, 2006, the attached document was hand delivered to the following persons and was electronically filed with the Clerk of the Court using CM/ECF which will send notification to the registered attorney(s) of record that the document has been filed and is available for viewing and downloading:

Jack B. Blumenfeld
Maryellen Noreika
Leslie A. Polizoti
Morris, Nichols, Arsht & Tunnell
1201 N. Market Street
Wilmington, DE 19801

I hereby certify that on November 27, 2006, I have Electronically Mailed the documents to the following:

Robert M. Masters
Paul, Hastings, Janofsky & Walker LLP
875 15th Street, N.W.
Washington, D.C. 20005
RobMasters@paulhastings.com

/s/ David E. Moore
Richard L. Horwitz
David E. Moore
Potter Anderson & Corroon LLP
Hercules Plaza – Sixth Floor
1313 North Market Street
P.O. Box 951
Wilmington, DE 19899-0951
(302) 984-6000
rhoorwitz@potteranderson.com
dmoore@potteranderson.com

680012